

AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application.

Listing of Claims:

1. (previously presented) A system comprising:

a bus; and

a plurality of agents coupled to said bus, in which each of said plurality of agents is configured to arbitrate for said bus using an arbitration priority scheme, but wherein only one of said plurality of agents is selected as a predetermined default agent to be alone given default grant of said bus independent of the arbitration priority scheme, if no other of said plurality of agents arbitrates for said bus, said default agent to also be an arbitration participant with other ones of said plurality of agents when arbitrating using the arbitration priority scheme, and in which said default agent is changed to a lower priority in the arbitration priority scheme in response to using said bus by default grant, but said default agent to always maintain its status to be given default grant of said bus, even after other agents win arbitration of said bus.

2. (canceled)

3. (previously presented) The system as recited in claim 1 further comprising a plurality of request signals, each of the plurality of request signals corresponding to a respective agent of said plurality of agents and used by said respective agent to indicate whether or not said respective agent is arbitrating for said bus, and wherein said default agent is coupled to receive at least one of the plurality of request signals corresponding to other ones of said plurality of agents, and wherein said default agent is configured to determine if none of said plurality of agents is arbitrating responsive to the plurality of request signals.

4. (previously presented) The system as recited in claim 1 wherein said bus is a split transaction bus including an address bus and a data bus, and wherein said default agent is

to be given default grant of said data bus responsive to no other of said plurality of agents arbitrating for said data bus.

5. (previously presented) The system as recited in claim 1 wherein said default agent is configured to use said bus responsive to being given default grant, only if said default agent has information to transfer on said bus.

6. (previously presented) The system as recited in claim 1 wherein said default agent is configured to arbitrate for said bus using the arbitration priority scheme if at least one other of said plurality of agents is arbitrating for said bus and said default agent has information to transfer on said bus.

7. (canceled)

8. (previously presented) The system as recited in claim 1 further comprising one or more arbiters configured to perform arbitration, wherein said one or more arbiters are configured to maintain a state indicative of priority of said plurality of agents, and wherein an agent winning an arbitration is changed to lowest priority in the arbitration priority scheme.

9. (canceled)

10. (previously presented) An arbiter for a bus comprising:

a first circuit coupled to receive a plurality of request signals, each of the plurality of request signals corresponding to a respective agent of a plurality of agents coupled to said bus and indicative of whether or not said respective agent is arbitrating for said bus using an arbitration priority scheme, wherein said first circuit is configured to grant default use of said bus independent of the arbitration priority scheme to a predetermined default agent selected as an only agent from said plurality of agents for lone use of the default grant, if no other of said plurality of agents is arbitrating for said bus, said default agent to also be an arbitration participant with other ones of said plurality of agents when

arbitrating using the arbitration priority scheme, and in which said default agent is changed to a lower priority in the arbitration priority scheme in response to using said bus, but said default agent to always maintain its status to be given default grant of said bus, even after other agents win arbitration of said bus.

11. (canceled)

12. (previously presented) The arbiter as recited in claim 10 wherein said bus is a split transaction bus including an address bus and a data bus, and wherein said default agent is granted use of said data bus responsive to none of said plurality of agents arbitrating for said data bus.

13. (previously presented) The arbiter as recited in claim 10 further comprising a second circuit configured to determine if said default agent wins an arbitration for said bus if at least one of said plurality of agents is arbitrating for said bus, and wherein said second circuit is configured to determine if said default agent wins arbitration according to the arbitration priority scheme.

14. (previously presented) The arbiter as recited in claim 13 further comprising a storage coupled to said second circuit, said storage to store an indication of priority of other ones of said plurality of agents to said default agent, and wherein a winner of said arbitration is updated to lowest priority.

15. (canceled)

16. (previously presented) A method comprising:

selecting a predetermined default agent as an only agent from a plurality of agents to have default grant of a bus independent of an arbitration priority scheme used by said plurality of agents;

granting default use of said bus to said default agent responsive to none of said plurality of agents arbitrating for said bus using the arbitration priority scheme, wherein

said default agent is also an arbitration participant with other ones of said plurality of agents using the arbitration priority scheme to arbitrate for said bus;

using said bus by said default agent in response to obtaining default grant of said bus;

changing priority of said default agent after using said bus, said default agent changed to a lower priority in said arbitration priority scheme; and

maintaining always for said default agent its status to be granted default use of said bus independent of arbitrations granted by the arbitration priority scheme to the plurality of agents, even after other agents win arbitration of said bus.

17. (canceled)

18. (previously presented) The method as recited in claim 16 further comprising:

receiving a plurality of request signals, each of said plurality of request signals corresponding to a respective agent of said plurality of agents and indicative of whether or not said respective agent is arbitrating for said bus; and

determining that none of said plurality of agents is arbitrating responsive to the plurality of request signals.

19. (previously presented) The method as recited in claim 16 wherein said bus is a split transaction bus including an address bus and a data bus, and wherein said granting comprises granting default use of said data bus to said default agent.

20. (previously presented) The method as recited in claim 16 further comprising using said bus by said default agent only if said default agent has information to transfer on said bus.

21. (previously presented) The method as recited in claim 20 further comprising arbitrating for said bus by said default agent if one or more of said plurality of agents are arbitrating.

22. (previously presented) The method as recited in claim 21 further comprising determining a winner of an arbitration according to the arbitration priority scheme.

23. (canceled)

24. (currently amended) A ~~carrier~~ computer-readable medium comprising a database which is when operated upon by a program executable on a computer system, ~~the program operating on the database to perform a portion of a process is used to fabricate an integrated circuit, the integrated circuit including circuitry described by the database, the circuitry described in the database including a system comprising:~~

a bus; and

a plurality of agents coupled to said bus, in which each of said plurality of agents is configured to arbitrate for said bus using an arbitration priority scheme, but wherein only one of said plurality of agents is selected as a predetermined default agent to be alone given default grant of said bus independent of the arbitration priority scheme, if no other of said plurality of agents arbitrates for said bus, said default agent to also be an arbitration participant with other ones of said plurality of agents when arbitrating using the arbitration priority scheme, and in which said default agent is changed to a lower priority in the arbitration priority scheme in response to using said bus by default grant, but said default agent to always maintain its status to be given default grant of said bus, even after other agents win arbitration of said bus.

25. (canceled)

26. (currently amended) The ~~carrier~~ computer-readable medium as recited in claim 24 wherein said bus is a split transaction bus including an address bus and a data bus, and wherein said default agent is to be given default grant of said data bus responsive to no other of said plurality of agents arbitrating for said data bus.

27. (currently amended) The ~~carrier~~ computer-readable medium as recited in claim 24 wherein said default agent is configured to use said bus responsive to being given default

grant, only if said default agent has information to transfer on said bus.

28. (currently amended) The ~~earlier~~ computer-readable medium as recited in claim 24 further comprising one or more arbiters configured to perform arbitration, wherein said one or more arbiters are configured to maintain a state indicative of priority of said plurality of agents, and wherein an agent winning an arbitration is changed to lowest priority in the arbitration priority scheme.

29. (canceled)

30. (currently amended) A ~~earlier~~ computer-readable medium comprising a database which ~~is~~ when operated upon by a program executable on a computer system, ~~the program operating on the database to perform a portion of a process is used to fabricate an integrated circuit, the integrated circuit including circuitry described by the database, the circuitry described in the database including an arbiter for a bus, the arbiter comprising:~~

a first circuit coupled to receive a plurality of request signals, each of said plurality of request signals corresponding to a respective agent of a plurality of agents coupled to said bus and indicative of whether or not said respective agent is arbitrating for said bus using an arbitration priority scheme, wherein said first circuit is configured to grant default use of said bus independent of the arbitration priority scheme to a predetermined default agent selected as an only agent from said plurality of agents for lone use of the default grant, if no other of said plurality of agents is arbitrating for said bus, said default agent to also be an arbitration participant with other ones of said plurality of agents when arbitrating using the arbitration priority scheme, and in which said default agent is changed to a lower priority in the arbitration priority scheme in response to using said bus, but said default agent to always maintain its status to be given default grant of said bus, even after other agents win arbitration of said bus.

31. (canceled)

32. (currently amended) The ~~earlier~~ computer-readable medium as recited in claim 30 wherein said bus is a split transaction bus including an address bus and a data bus, and wherein said default agent is granted use of said data bus responsive to no other of said plurality of agents arbitrating for said data bus.

33. (currently amended) The ~~earlier~~ computer-readable medium as recited in claim 30 further comprising a storage configured to store an indication of priority of other ones of said plurality of agents to said default agent, and wherein a winner of said arbitration is updated to lowest priority.

34. (canceled)

35. (previously presented) The system as recited in claim 1 wherein said default agent is configured to drive said bus responsive to being given default grant even if said default agent has no information to transfer on said bus.

36. (previously presented) The system as recited in claim 1 wherein priority is changed in response to any one of the plurality of agents using said bus.

37. (previously presented) The system as recited in claim 36 wherein one of said plurality of agents using said bus is changed to a lowest priority.

38. (previously presented) The arbiter as recited in claim 10 wherein priority is changed in response to any one of the plurality of agents using said bus.

39. (previously presented) The arbiter as recited in claim 38 wherein one of said plurality of agents using said bus is changed to a lowest priority.

40. (previously presented) The method as recited in claim 16 further comprising driving said bus by said default agent in response to being given default grant even if said default agent has no information to transfer on said bus.

41. (currently amended) The ~~earlier~~ computer-readable medium as recited in claim 24 wherein said default agent is configured to drive said bus responsive to being given default grant even if said default agent has no information to transfer on said bus.

42. (currently amended) The ~~earlier~~ computer-readable medium as recited in claim 24 wherein priority is changed in response to any one of the plurality of agents using said bus.

43. (currently amended) The ~~earlier~~ computer-readable medium as recited in claim 42 wherein one of said plurality of agents using said bus is changed to a lowest priority.

44. (currently amended) The ~~earlier~~ computer-readable medium as recited in claim 30 wherein priority is changed in response to any one of the plurality of agents using said bus.

45. (currently amended) The ~~earlier~~ computer-readable medium as recited in claim 44 wherein one of said plurality of agents using said bus is changed to a lowest priority.